

Claims

1. (currently amended) A germline-competent black B6 ES cell line form from C57BL/6 mouse strain consisting of IC1.
2. (currently amended) A germline-competent white albino B6 ES cell line from C57BL/6J-Tyr^{c-23} C57BL/6J-Tyr^{c-2J} mouse strain consisting of IAC1.
3. (currently amended) A method of generating a chimeric mouse for producing genetically modified C57 mice, wherein said chimeric mouse is produced by introducing C57 ES cells with marker genes into blastocysts from the same color strain, and transplanting said blastocysts into a pseudopregnant animal to produce the chimeric mouse which can not be be seen by coat color.
4. (previously presented) A method of introducing black B6 ES cells modified with marker genes into albino B6 blastocysts to produce a black into white combination, said method comprising the steps of:
 - a) introducing genetic modification in black B6 ES cells to produce modified ES cells,
 - b) introducing said modified ES cells into blastocysts from an albino C57 strain and transplanting said blastocysts into a pseudopregnant animal,
 - c) allowing said blastocysts to develop into chimeras identified by coat color, and
 - d) breeding said chimeras to produce offspring.
5. (previously presented) A method of introducing albino B6 ES cells into

black B6 blastocysts to produce a white into black combination, said

method comprising the steps of:

- a) introducing genetic modification in albino B6 ES cells to produce modified ES cells,
- b) introducing said modified B6 ES cells into blastocysts from black C57 strain and transplanting said blastocysts into a pseudopregnant mouse,
- c) allowing said blastocyst to develop into chimeras identified by coat color, and
- d) breeding said chimeras to produce offspring.

6. (currently amended) The method of claim 3 wherein the chimerism is identified by PCR and Southern Blot, said chimerism being not identifiable by coat color when C57 ES cells are injected into C57 blastocysts of the same color strain.
7. (previously presented) The method of claim 3 wherein black B6 ES cells are introduced into black B6 blastocysts to produce a black into black combination.
8. (previously presented) The method of claim 6 wherein black B6 ES cells are introduced into black B6 blastocysts to produce a black into black combination.
9. (cancelled)
10. (cancelled)
11. (cancelled)